

Part_II_Prsoper Loan Data

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1 Part II - (Prsoper Loan Data)

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1.2 Investigation Overview

My interest was to find how the the prosper rating is affected by employment status, loan status, and how it also relates to the original loan amount and the loan term. During the exploration, I found out that there is a direct relationship between the prosper rating, loan amount and term of the loan.

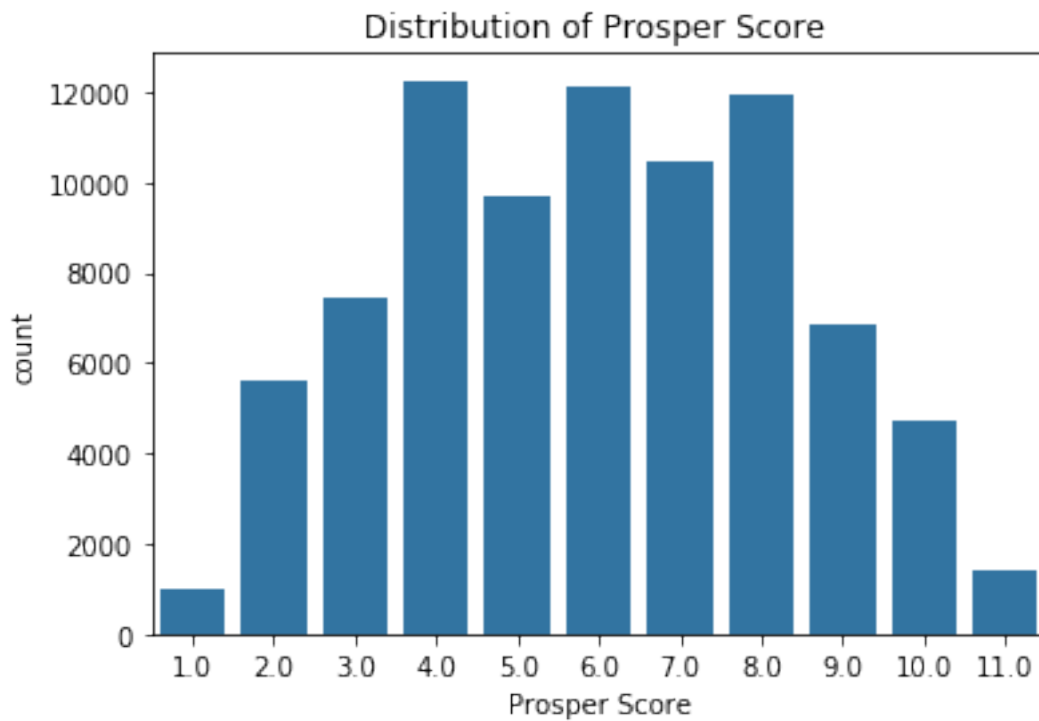
1.3 Dataset Overview

worked on the Prsoper Loan Dataset which consists of 113,937 rowas and 81 columns. Some of the variables contained in the dataset are:Term, ListingCategory (numeric), CreditGrade, EstimatedReturn, Investors, StatedMonthlyIncome, AmountDelinquent, ProsperScore, LoanOriginalAmount, MonthlyLoanPayment, LoanStatus, BorrowerRate, ProsperRating (Alpha), LoanOriginationDate, EmploymentStatus, Occupation, IncomeRange.

1.4 Prosper score

This plot shows an almost normal distribution of risk scores. While 1.0 is the lowest score, 4.0, 6.0, and 8.0 are the highest recorded scores

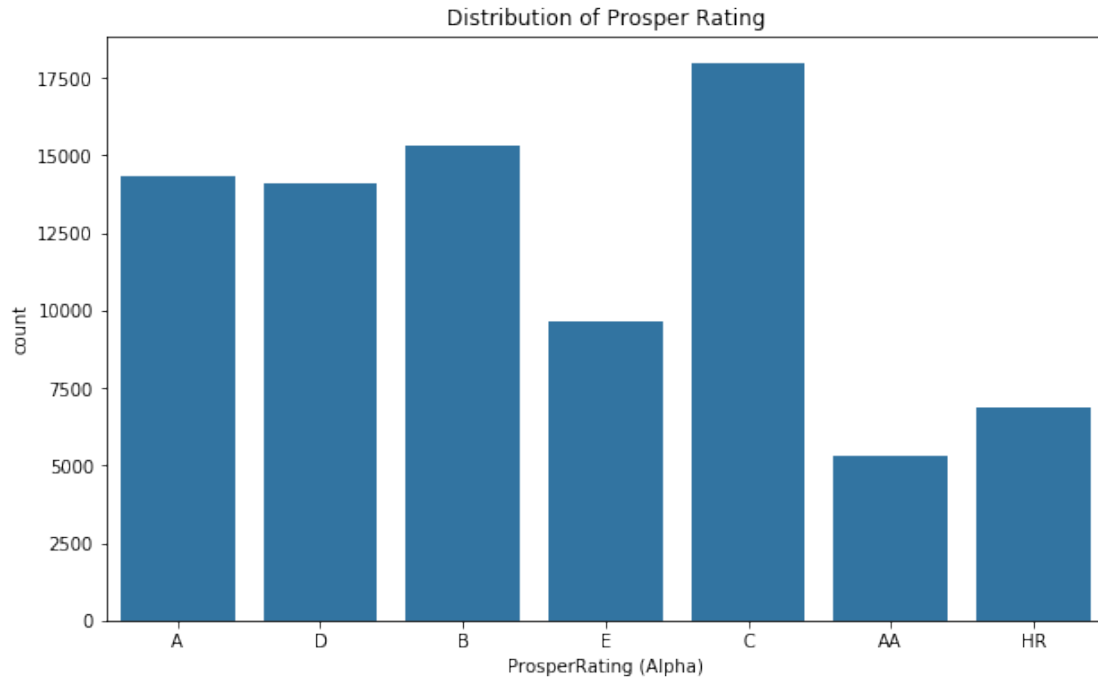
In [4] :



1.5 Loan Prosper Rating

Majority of the borrowers recieved a prosper rating of C while AA rating was recieved by the least number of borrowers

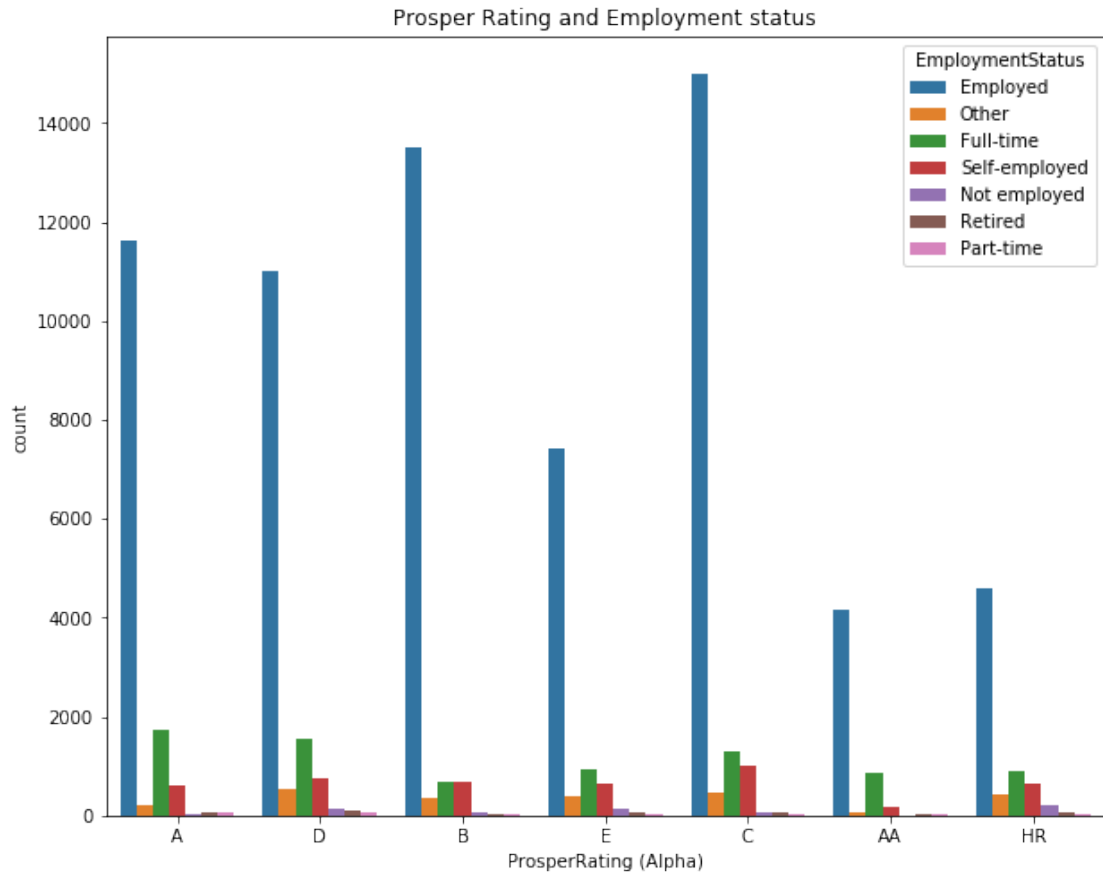
In [5] :



1.6 Prosper rating vs employment status

Employed people appear the most in all the rating categories. Most of the employed people recieved a C rating and the least number of employed people have the highest rating of AA. This pattern can be observed for all other employemnt status across the different catrgories of ratings.

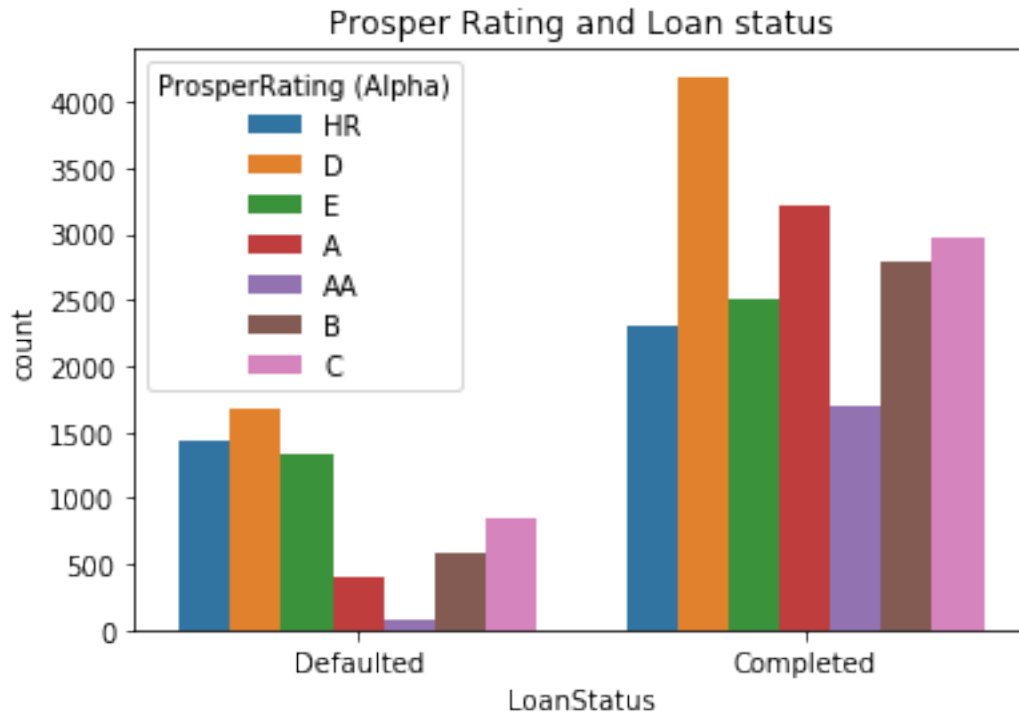
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1.7 Prosper rating vs loan status

Both the defaulted and completed loans have D as the highest rating. While A rating is the second highest recorded rating for completed loans, HR rating is the second highest for defaulted loans.

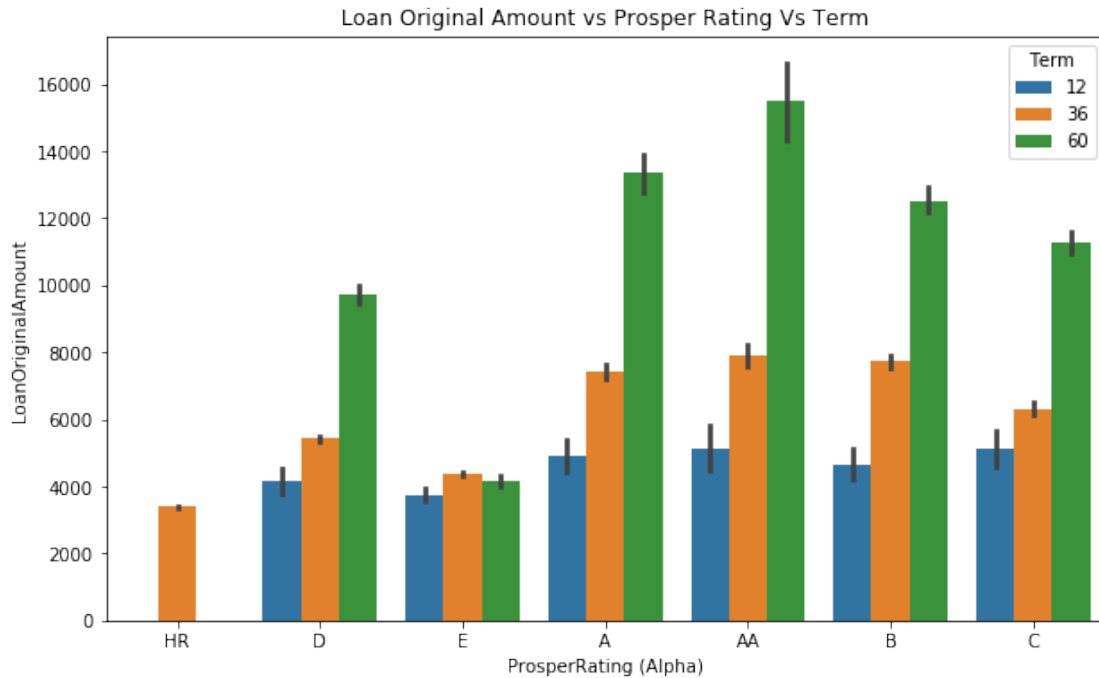
In [8] :



1.8 Prosper Rating, Stated Monthly Income and Term of the loan

No much interaction can be seen between Prosper rating and Term for the Stated monthly income unlike in the loan amount. At Prosper rating AA which is the highest rating, the loan amount for all three terms is highest.

In [9] :



1.9 Prosper Rating, Loan Original Amount and LoanStatus

It can be observed here that defaulted loans have the highest loan amount across all the prosper rating category, except in HR

In [10] :

